



## **Spill Prevention, Preparedness, and Response Program Prevention Section**

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# **WASHINGTON STATE ACCEPTED INDUSTRY STANDARDS FOR CARGO & PASSENGER VESSELS**

**The following standards apply to all CARGO and PASSENGER vessels 300 gross registered tons and larger while operating in Washington State waters:**

## **I. OPERATING PROCEDURES**

### **BRIDGE WATCH PROCEDURES, WAC 317-31-210.**

Employ a Bridge Resource Management (BRM) system that is consistent with STCW '95 and includes the following elements:

1. Formal underway watch conditions for open sea transits, coastal and restricted waters navigation, and restricted visibility conditions.
2. Watch composition for each condition.
3. Procedures for navigation with a pilot embarked.
4. Procedures for bridge team response to emergencies.
5. Clear delegation of duties, responsibilities and authority between bridge team members, including a clear policy for determining when the master has assumed control of the vessel from the deck watch officer or the state-licensed pilot.
6. Procedures for both internal and external communication for each watch condition.
7. On-going monitoring and correction of the voyage plan and recording of significant deviations from the plan in the bridge log.

### **HELMSMAN AND LOOKOUT, WAC 317-31-210.**

Ensure that lookouts are assigned no other duties and that the helmsman does not serve as lookout.

### **PILOT/MASTER EXCHANGE OF INFORMATION, WAC 317-31-210.**

Employ a pilot card and procedures to facilitate coordination and communication with state-licensed pilots.

### **SECURITY ROUNDS, WAC 317-31-210.**

Ensure that security rounds of the vessel are conducted hourly while in port or at anchor and at least once per watch while underway. The Master should designate spaces on the vessel to be visited during the security rounds in standing orders or other instructions to watchstanders. The primary purpose of security rounds is to detect and report fires, flooding and/or unsafe conditions. Vessels in lay-up status are not affected by this standard.

**ANCHOR WATCH, WAC 317-31-210.**

Ensure that a licensed deck officer is standing watch on the vessel's bridge and monitoring the vessel's position while anchored in state waters.

**GROUND TACKLE READINESS, WAC 317-31-210.**

Ensure that vessel anchors are clear and ready to drop, when safe and practicable, while underway in state waters.

**VOYAGE PLANNING, WAC 317-31-210.**

Employ a documented voyage planning system for the entire transit through state waters that includes the following minimum elements:

1. Review of general waterway characteristics.
2. Navigational aids.
3. Charts, navigational publications, and notices to mariners.
4. Expected traffic levels.
5. Environmental (weather and currents) conditions expected.
6. Pilotage.
7. Vessel traffic services (VTS) procedures and communications.
8. Berthing/anchoring arrangements (if known).
9. Engineering considerations.
10. Voyage-specific amendments or additions to standard emergency procedures.

**CHARTS AND PUBLICATIONS, WAC 317-31-210.**

Ensure that all charts and navigational publications covering state waters to be transited are correct and current.

**ENGINE ROOM CREWING, WAC 317-31-210.**

Ensure that licensed engineer officers are on watch in the engine room and engine control room, if equipped, while underway in state waters. In addition, an unlicensed engineer rating should be on watch in the engineering spaces while underway in state waters.

**ENGINEERING WATCH PRACTICES, WAC 317-31-210.**

Employ engineering watch practices that are consistent with STCW '95 and address, at a minimum, the following:

1. Formal underway watch conditions for open sea transits and coastal and restricted waters transits.
2. Watch composition for each condition.
3. Procedures for taking over and performing a watch under various conditions and in various waters.
4. Procedures for engineering responses to emergencies.
5. Clear delegation of duties, responsibilities and authority between watch members.
6. Procedures for both internal and external communications for each watch condition.
7. Inspection, maintenance and operation of the propulsion, steering and power generating systems that meet international and federal requirements and manufacturers' recommendations.

**NAVIGATION EQUIPMENT ERROR CHECKS, WAC 317-31-210.**

Ensure that all radars, gyrocompasses, magnetic compasses and compass repeaters in use are properly calibrated and checked for errors at least once per watch while underway in state waters.

**ELECTRICAL SYSTEMS, WAC 317-31-210.**

Ensure that standby and emergency generators are proven operational no more than 12 hours prior to entering or operating in state waters.

**FUEL OIL SYSTEMS, WAC 317-31-210.**

Ensure that primary and back-up fuel pumps are proven operational and fuel oil settler and service tanks are filled with adequate clean oil for the entire transit through state waters no more than 12 hours prior to entering or operating in state waters.

**LUBE OIL SYSTEMS, WAC 317-31-210.**

Ensure that primary and back-up lube oil systems, including pumps, piping, valves, and switching mechanisms, are proven operational no more than 12 hours prior to entering or operating in state waters.

**OIL STRAINERS, WAC 317-31-210.**

Ensure that all fuel and lube oil strainers are cleaned and ready for use no more than 12 hours prior to entering or operating in state waters.

**COOLING WATER SYSTEMS, WAC 317-31-210.**

Ensure that all cooling water primary and back-up circulating systems; including pumps, lines, valves, and automatic and manual switching mechanisms, are proven operational no more than 12 hours prior to entering or operating in state waters. In addition, scoop injection cooling water systems, if installed, should be secured before entering state pilotage waters.

**CONTROL/START AIR SYSTEMS, WAC 317-31-210.**

Ensure that control and starting air system tanks are full, all primary and back-up air compressors have been proven operational, and condensate in the system has been properly drained no more than 12 hours prior to entering or operating in state waters.

**STEERING GEAR FLAT, WAC 317-31-210.**

Ensure that primary and back-up steering systems are tested no more than 12 hours prior to entering or operating in state waters. In addition, the steering gear flat should be inspected hourly while the vessel is underway in state waters, unless a remote monitoring system is installed.

**CARGO OPERATIONS/STABILITY, WAC 317-31-210.**

Ensure that vessel Masters and Chief Officers prepare, update, and monitor stability plans for all cargo loading and unloading operations. Transverse stability, longitudinal hull stress, sheer forces, bending moments and ballasting should be considered. Updates should be reviewed and coordinated with terminal personnel responsible for cargo operations.

**DANGEROUS/HAZARDOUS CARGO, WAC 317-31-210.**

Ensure that vessels transporting, loading, or unloading dangerous and/or hazardous cargo pre-verify cargo stowage for acceptability per the International Maritime Dangerous Goods (IMDG) Code and 49 CFR. Proper cargo stowage should be verified by the person designated by the Master to be responsible for dangerous and/or hazardous cargo loading/unloading.

## **OIL TRANSFERS, WAC 317-31-210.**

Ensure that:

1. All bunkering operations in Washington waters comply with chapter 317-40 WAC, Bunkering Operations;
2. Ships possess and use written Oil Transfer Procedures (OTP) that meet the requirements of 33 CFR 155.720 for all transfers of oil within the vessel, and to or from the vessel.
3. The OTP is written in the common working language of the vessel's crew.
4. For transfers to or from the ship, the OTP requires a face-to-face pre-transfer conference between the vessel's and the facility's, terminal's or other vessel's PIC to prepare the Declaration of Inspection required by 33 CFR 156.150, unless conditions make it unsafe to do so.
5. For transfers to or from the ship, the OTP requires documented pre-transfer planning that, at a minimum, includes pre-transfer levels in receiving tanks, states the order in which tanks will receive or discharge oil, establishes procedures for sounding receiving and discharging tanks, and topping off receiving tanks.
6. The OTP ensures that crew involved in any oil transfer meet the rest requirements under STCW '95. (At least 10 hours of rest in any 24-hour period and not less than 70 hours of rest in any 7-day period.)
7. The OTP provides for periodic review and training in the policies and practices required by the OTP.

## **EMERGENCY PROCEDURES, WAC 317-31-210.**

Establish and maintain station bills outlining crew member responsibilities for firefighting, oil spill response, abandon ship and man overboard. In addition, written procedures should be established for responding to:

1. Collisions and allisions
2. Groundings and strandings
3. Hull breach, structural failure, and foundering
4. Loss of propulsion
5. Loss of steering
6. Loss of electrical power
7. Gyrocompass malfunction
8. Emergency towing
9. Loss of bridge throttle control (if equipped)
10. Heavy weather

Provision should be made for periodic reviews or drills to exercise the written procedures.

## **EMERGENCY TOWING, WAC 317-31-210.**

Ensure that all affected vessels have a functional emergency towing plan and/or procedures and that crew members are trained to deploy and use emergency towing equipment. Reviews or drills of emergency towing procedures should be conducted at least twice per year.

## **II. PERSONNEL POLICIES**

### **VESSEL CREWING, WAC 317-31-210.**

Ensure that their vessels are crewed in accordance with the requirements of the vessels' flag state. Crew members should be certified in accordance with STCW '95 for the position they are filling.

### **WORK HOURS/FATIGUE, WAC 317-31-210.**

Ensure that vessel crew members are rested at least ten hours per day except in an emergency. The ten hours may be divided into no more than two periods, but at least six hours of rest each day must be consecutive and uninterrupted. In an emergency, vessel crew members may be rested less than ten hours, but not less than six consecutive hours, per day, and for no more than two consecutive days. All crew members must have at least 70 hours of rest per seven-day period in all cases. This standard does not apply to state-licensed pilots who are covered by the State Pilotage Code.

### **ALCOHOL AND DRUG POLICY, WAC 317-31-210.**

Establish and maintain policies for alcohol use that conform to 33 and 46 CFR, including mandatory post-incident testing. In addition, they should strictly prohibit illegal drugs, as defined in 46 CFR, from use or carriage on board their vessels. This standard does not apply to state-licensed pilots, who are covered by the State Pilotage Code.

### **JOB SPECIFIC AND REFRESHER TRAINING, WAC 317-31-210.**

Establish and maintain a comprehensive training program for vessel crew members that includes functional and job-specific equipment training, and refresher training. Training program should include bridge resource management training for deck watch personnel and shipboard management training consistent with the International Safety Management (ISM) code for senior officers. This standard does not apply to state-licensed pilots who are covered by the State Pilotage Code.

### **ORIENTATION TRAINING, WAC 317-31-210.**

Ensure orientation training is provided for new crew members who have not been assigned to a vessel of the same type within the past year. The orientation training should include duties and responsibilities during all normal and emergency situations and vessel familiarization including escape routes from work and sleeping spaces.

### **BASIC EMERGENCY DRILLS, WAC 317-31-210.**

Ensure that emergency drills are conducted at least once per month or whenever 25% or more of the vessel crew is replaced. Drills should be evaluated and reviewed by all participants at the conclusion of the drill. Emergency drills should include firefighting, abandon ship, boat drill, emergency steering and oil spill response.

### **ENGLISH PROFICIENCY, WAC 317-31-210.**

Ensure that all officers who are required to communicate with pilots, persons ashore, and other vessels are sufficiently proficient in the English language to accomplish their duties safely.

### **COMMON LANGUAGE, WAC 317-31-210.**

Designate a common spoken and written working language on board vessels with multi-national crews. All manuals, instructions, and placards on vessels with multi-national crews should be printed in the designated common language.

### **III. MANAGEMENT PRACTICES**

#### **MANAGEMENT OVERSIGHT, WAC 317-31-210.**

Ensure that vessels are visited by a representative of company management, such as a port captain, a port engineer, or the management system designated person, at least quarterly. The management representative should review operating and management issues, inspect the vessel, and consult with the senior officers on the vessel.

#### **SAFETY/ENVIRONMENTAL MANAGEMENT PROGRAM, WAC 317-31-210.**

Establish and maintain a certified safety and environmental protection management system in accordance with the ISM code.

#### **SAFETY PROGRAM, WAC 317-31-210.**

Ensure that a corporate safety program consistent with the ISM Code is established and maintained. The safety program should include a system for disseminating critical safety information, including accident prevention measures and corrective actions, throughout the owner or operator's fleet of vessels.

#### **SHIPBOARD SAFETY PROGRAM, WAC 317-31-210.**

Ensure that a shipboard safety program is established and maintained that includes safety meetings at least monthly.

#### **POLLUTION, WAC 317-31-210.**

Establish and maintain a pollution prevention program on each affected vessel to ensure compliance with international and federal regulations. The program should provide for incineration or landing, with record maintenance and receipts, of oil and solid waste. Record keeping systems should comply with international and federal standards. The program should also include crew training on pollution prevention and waste management practices.

#### **BALLAST WATER, WAC 317-31-210.**

Establish and maintain a ballast water policy that prohibits ballasting near sewer outfalls, in shallow water, or in water clouded with sediment, and requires a mid-ocean ballast water exchange, when safe and practical, to reduce the risk of introducing harmful organisms into state waters.

#### **PLANNED MAINTENANCE SYSTEM, WAC 317-31-210.**

Ensure that a planned maintenance system, consistent with ISM Code provisions, that includes preventive maintenance and detailed record keeping is in place for all major ship systems.

#### **INSPECTION/SURVEY, WAC 317-31-210.**

Ensure that ballast tanks and cargo holds are inspected at least annually to detect potential structural failures, cracks, coating integrity, and excessive corrosion.

#### **ULTRASONIC GAUGING, WAC 317-31-210.**

Establish and maintain a program of ultrasonic gauging and/or non-destructive testing of vessel hulls and tanks at intervals not to exceed 3 years if the affected vessels are not participating in an enhanced hull survey program administered by the International Association of Classification Societies (IACS). This standard does not apply to passenger vessels.

**In addition to inspecting cargo vessels for the above operating standards, the Department of Ecology also inspects vessels for compliance with:**

- 1. Washington State Oil Spill Contingency Plan rules: Chapter 317-10 WAC.**
- 2. Washington State Bunkering rules: Chapter 317-40 WAC.**
- 3. Applicable requirements under:**
  - International Convention for the Safety of Life at Sea (SOLAS);**
  - International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW);**
  - International Convention on the Prevention of Pollution from Ships (MARPOL);**
  - Title 33 of the U.S. Code of Federal Regulations (CFR); and**
  - Title 46 of the U.S. Code of Federal Regulations (CFR).**